

**Radiation Safety Section - Application for a Radiation Shielding Plan Review**

1st Floor, Ottawa Building

611 W. Ottawa St.

Lansing, MI 48933 – (517) 241-1989

Please complete this form and submit the form **with your radiation shielding plans and specifications** according to the guidelines listed below to the address listed above. Radiation shielding plans should be approved before construction and before operation of the x-ray equipment. Radiation Safety Section approval of the radiation shielding design does not imply local building code approval.

For assistance in proposing shielding, some general shielding guidance is available on our web site at <http://www.michigan.gov/rss> under Radiation Shielding Information

<b>For use by Radiation Safety Section</b> Plan review number: _____ Facility registration number: _____					
<b>A. Location of Proposed X-Ray Room(s)</b>					<input type="checkbox"/> <b>Send Results to this Address</b>
Facility Name			Doctor's Name or Other Contact Name		
Address			Unit / Suite number		
City	State	County	Zip Code	E-Mail	
Expected Date of Project Completion:			Radiation Machine Registration Certificate Number (If Already Registered)		
Telephone Number (     )		Fax (     )		Cell Number (     )	
<b>Certificate of Need Information</b> <i>X-ray installations that require a certificate of need (CON) include:          megavoltage radiation therapy, C.T. scanners, cardiac catheterization, electrophysiology labs, and lithotripsy</i>					
Does this project require a Certificate of Need? <input type="checkbox"/> Yes <input type="checkbox"/> No      If Yes, CON# _____					
<b>B. Submitter of Plan if Different than Indicated in Part A.</b>					<input type="checkbox"/> <b>Send Results to this Address</b>
Company Name			Contact Name		
Address			Unit / Suite Number		
City	State	Zip Code		E-Mail	
Telephone Number (     )		Fax (     )		Cell Number (     )	
<b>C. Facility Representative if Different than Indicated In Part A.</b>					<input type="checkbox"/> <b>Send Results to this Address</b>
Facility Name			Doctor's Name or Other Contact Name		
Address			Unit / Suite Number		
City	State	County	Zip Code	E-Mail	
Telephone Number (     )	Fax (     )	Cell Number (     )	Radiation Machine Registration Certificate Number (If Already Registered)		
Submit radiation shielding plans and specifications with this form to:  Bureau of Health Systems, Radiation Safety Section Michigan Department of Community Health 1 <sup>st</sup> Floor, Ottawa Building 611 W. Ottawa St. Lansing, Michigan 48933			<b>For use by Radiation Safety Section</b> Date received: _____		

<b>D. Purpose of Application</b>	
<input type="checkbox"/> New X-Ray Room (New Construction)	<input type="checkbox"/> New Equipment in Existing X-ray Room
<input type="checkbox"/> New Owner of an Existing X-Ray Facility	
<b>E. Type of Facility</b>	
<input type="checkbox"/> Hospital  <input type="checkbox"/> Podiatric  <input type="checkbox"/> Educational	<input type="checkbox"/> Radiology Office  <input type="checkbox"/> Veterinary  <input type="checkbox"/> Other _____
<input type="checkbox"/> M.D. / D.O.  <input type="checkbox"/> Dental	<input type="checkbox"/> Chiropractic  <input type="checkbox"/> Industrial
<b>F. Type of Machine and Anticipated Workload</b>	
<input type="checkbox"/> Radiographic <input type="checkbox"/> Mammographic <input type="checkbox"/> Dental Cephalometric	<input type="checkbox"/> Extremity Only <input type="checkbox"/> Linear Accelerator <input type="checkbox"/> Dental Tomographic <input type="checkbox"/> Other _____
<input type="checkbox"/> Fluoroscopic <input type="checkbox"/> Heart Catheterization <input type="checkbox"/> Special Procedures	<input type="checkbox"/> CT Scanner <input type="checkbox"/> Educational
Maximum kilovoltage (kVp): _____ Anticipated radiographic workload (mA-minutes per week): _____ Maximum milliamperage (mA): _____ <b>OR</b> Therapeutic workload (rads or cGy per week at 1 meter): _____	
<b>G. Attach Drawing of Room</b>	
<b>Provide plans or blue prints of rooms and adjacent areas (to scale). Scale must be ¼ inch per foot or larger. Please verify that ALL of these items are included in your submittal. Incomplete submittals will delay the plan review.</b>	
<input type="checkbox"/> All x-ray equipment and accessories <input type="checkbox"/> Windows <input type="checkbox"/> Patient viewing window <input type="checkbox"/> Wall cassette holder <input type="checkbox"/> X-ray table (including the extent of movement) <input type="checkbox"/> The exact location of all proposed shielding <input type="checkbox"/> The thickness of the proposed shielding <input type="checkbox"/> Doors <input type="checkbox"/> Operator's barrier	<input type="checkbox"/> Compass Direction <input type="checkbox"/> Exposure switch (exact location) <input type="checkbox"/> X-ray Tube (and extent of movement) <input type="checkbox"/> The height of the shielding installed <input type="checkbox"/> Information about the height of adjacent buildings <input type="checkbox"/> Information pertaining to occupancy above and below <input type="checkbox"/> Building material thicknesses, if used for shielding (include architectural documentation)
<ul style="list-style-type: none"> <li>Specify proposed shielding, such as lead (note thickness), brick veneer, solid or hollow-core concrete block, cinder block, poured concrete, etc. Indicate the thickness and density of concrete and masonry materials. For corrugated concrete floors and ceilings that are used as shielding, include the MINIMUM concrete thickness and the density (or unit weight) of the concrete in pounds per cubic foot.</li> <li>Include a description of the occupancy and control of adjoining areas including above and below the x-ray room on the plans.</li> <li>Include a description of any area beyond an outside wall, such as lawn, parking lot, and sidewalk. For exterior walls, show distance to property line and to closest area where individuals may be present.</li> <li>Include the distance to any multi-story buildings which are nearby.</li> </ul>	
<b>CT Scanners</b>	
Include a copy of the iso-exposure curve normally provided by the manufacturer and calculations performed by a medical physicist.	
<b>Linear Accelerators</b>	
For accelerator facilities, include all assumptions and calculations upon which the proposed shielding is based. Such calculations should address instantaneous dose equivalent rates, as would be measured with a rate-type survey meter, and integrated weekly doses to adjacent areas for worst-case operating conditions. Specify neutron shielding methods for duct work and for other room penetrations, such as the use of borated polyethylene on doors.	

Submit radiation shielding plans and specifications with this form to:  Bureau of Health Systems, Radiation Safety Section Michigan Department of Community Health 1 <sup>st</sup> Floor, Ottawa Building 611 W. Ottawa St. Lansing, Michigan 48933	Please notify the Radiation Safety Section promptly if changes are made which require re-evaluation of the plans. If there are any questions, please call (517) 241-1989.  For assistance in proposing shielding, some general shielding guidance is available on our web site at <a href="http://www.michigan.gov/rss">http://www.michigan.gov/rss</a> under Radiation Shielding Information.
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